

IN THE DRAWINGS

The attached sheets of drawings include changes to Figs. 1-2A. These sheets, which include Figs. 1-2A, replace the original sheets including Figs. 1-2A.

Attachment: Replacement Sheets

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

The drawings have been objected to under 37 C.F.R. §1.83(a); Claims 6-11 have been rejected under 35 U.S.C. §112, second paragraph, as being vague and indefinite and Claims 6-11 have been rejected under 35 U.S.C. §102(b) as being anticipated by Brautigam. New Claims 12-14 have been added and thus, Claims 6-14 remain active.

Considering first then the Examiner's objections to the drawings, it is to be noted that the figures have now been revised to show the interior wall 18 at which the outlet line 16 ends and the language has been revised to indicate that the outlet line ends flush at an interior wall 18 of the lid enclosing the hollow space. Since the drawings show the structure mentioned above and are based upon the disclosure as originally filed, it is submitted that such does not constitute new matter. In addition, a review of the drawings shows that feed device 5 was not yet illustrated. Accordingly, appropriate revisions have been made to Figure 1 to properly label such feed device. In view of the foregoing, it is submitted that the drawings fully comply with U.S. patent practice and procedure. However, should the Examiner believed that additional changes are still necessary, the Examiner is invited to contact Applicants' attorney or indicate in the next Office Action what additional changes may still be needed.

Considering next then the rejection of Claims 6-11 under 35 U.S.C. §112, second paragraph, it is to be noted that appropriate amendments have now been made to Claims 6 and 9 to more clearly define the structural interrelationship between the elements claimed and to clarify the position of the outlet line with respect to the reactor. It is therefore submitted that Claims 6-11 fully comply with 35 U.S.C. §112. In the event, however, the Examiner still believes that additional changes are needed to the claims, the Examiner is invited to contact

Applicants' attorney or to suggest an Examiner's Amendment to the claims to help place the application in condition for allowance.

Lastly considering then the rejection of Claims 6-11 under 35 U.S.C. §102(b) as being anticipated by Brautigam, Applicants note that Brautigam is directed to a completely different technical field as compared with the present invention. More particularly, such is directed to large sized high-pressure and high temperature heat exchangers, unlike the present invention which is instead directed to an automated synthesis apparatus for carrying out chemical reaction reflux cooling. More particularly, while the present invention deals with an automated synthesis apparatus, intended to carry out chemical syntheses under the control of a program, without manual intervention, and accordingly comprises a plurality of reactors with small dimensions (see the introductory portion of the specification of the present patent application, page 1, line 7 to page 20), Brautigam is directed to a high-temperature and high-pressure heat exchanger which must have large dimensions to be practical (see Brautigam, column 2, lines 8-10 and col. 1, lines 34-35). Moreover, it is an object of the invention of Brautigam to provide heat exchangers or reactors to be larger in size than has hitherto been practical (see col. 2, lines 4-8).

The automated synthesis apparatus also differs from Brautigam in the specific technical features claimed: the passage cited by the Examiner with respect to Fig. 2A of Brautigam just show ducts 9, 10 for a heat exchange medium between a cover 2 and a stiffening plate 23a of the heat exchanger. While perhaps the Examiner understands the space between cover 2 and stiffening plate 23a to potentially anticipate the lid 13 of the present invention, this understanding would be, however, erroneous due to the following reasons: according to the present invention, each reactor 3 is equipped with a lid 13, the lid 13 being configured as a hollow body and enclosing a hollow space 14, heat transfer medium flowing into and out of the hollow space 14 and which is introduced via an inlet line 15 and

which leaves the hollow space (14) via an outlet line (15). By this structural design of the lid (13) on the top of the reactor (3), the lid, which is the central technical feature of the invention, has the function of a reflux condenser so as to provide a miniaturized system which can be operated in a simple manner by means of a robot arm (see specification, page 2, lines 8-11).

The function of ducts 9, 10 in Fig. 2A of Brautigam is completely different, i.e., they are intended for feeding steam at a temperature of 500°K to 600°K, superheated steam being recovered at 15 at a temperature from 850°K to 1200°K (see Brautigam, col. 8, lines 46-52). By introducing steam via a duct, it is not possible to fulfill the requirements necessary for a reflux condenser, which is the central function of the lid according to the invention.

Moreover, the ducts 9, 10 in Fig. 2A of Brautigam completely pass through the space between cover 2 and stiffening plate 23a, while, according to the present invention, a heat exchange medium is fed to the hollow space 14 of the lid 13 via an inlet line 15 and is removed from the hollow space 14 via outlet line 16. Accordingly, the heat exchange medium flows through the hollow space surrounding the feed lines 17, which feed the liquid reactant or the reactant mixture into the reactor (see for a better understanding especially Fig. 2A of the present patent application).

In view of the foregoing, it is submitted that Claim 6 as well as Claims 7-11 dependent therefrom clearly patentably define over Brautigam as well as the remaining references of record.

Applicants further note that new Claims 12-14 have been added to clarify the fact that a reactor vessel has a volume of from 1-100 ml or 10-50 ml as discussed at page 2, lines 16-20 wherein it is stated that:

The invention is not restricted in respect of the volume, the geometry or the materials of construction of the reactors. However, preference is given to automated synthesis apparatuses having reactors whose volume is in the range from

cylindrical reactors, but, for example, cuboidal reactors can also be used.

In view of the fact that the object of Brautigam is to provide a relatively large high pressure and high temperature heat exchanger having two bundles weighing on the order of 150 tons as described at column 6, lines 6-19 and is clearly not intended for reactor volumes of the relatively small size claimed in such claims, it is submitted that such claims also merit indication of allowability.

In view of the foregoing, an early and favorable Office Action is believed to be in order and the same is hereby respectfully requested.

Respectfully submitted,

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